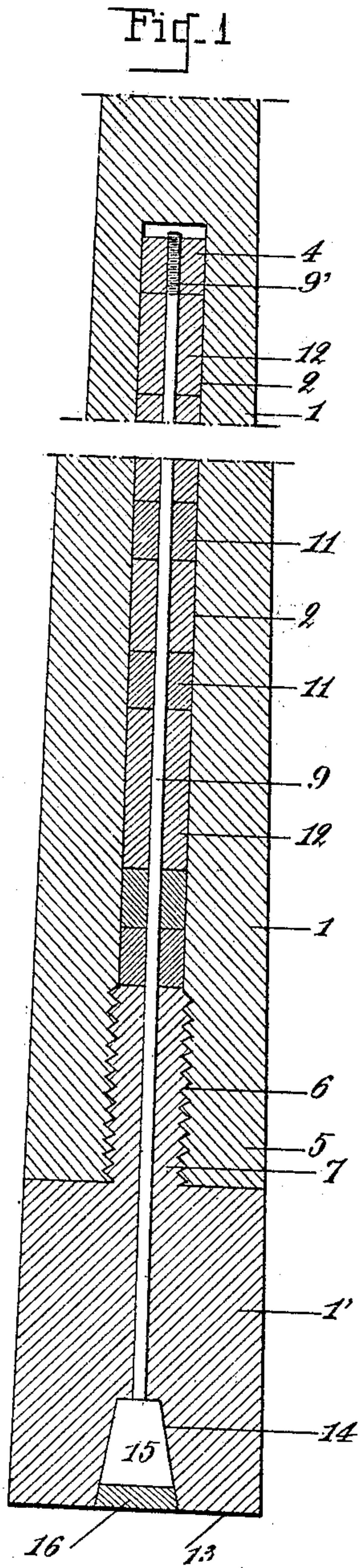


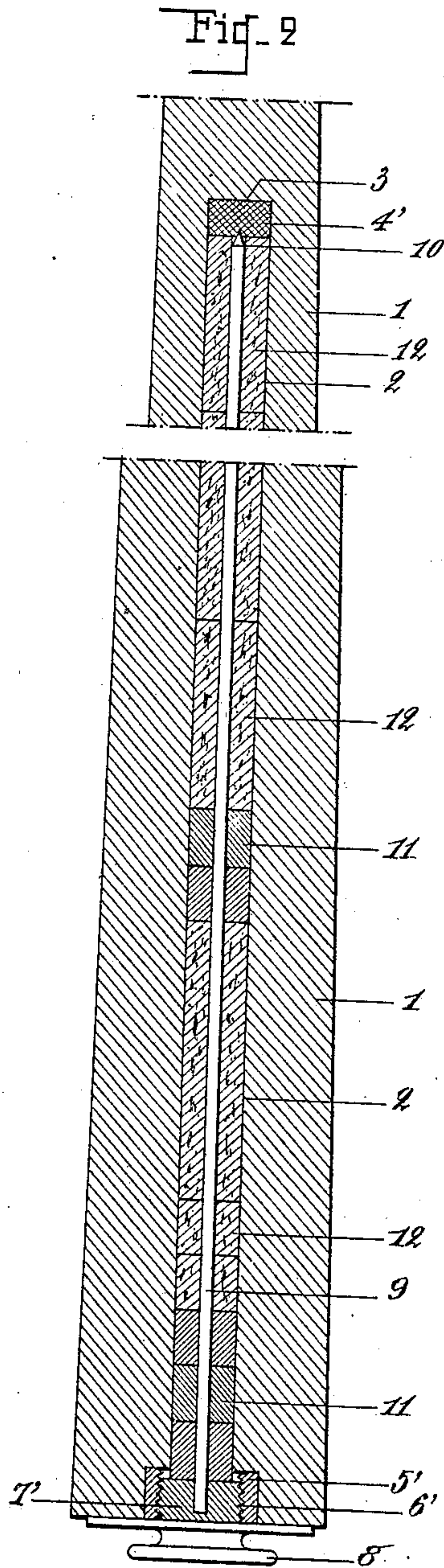
No. 829,749.

PATENTED AUG. 28, 1906.

J. ADORJAN.
BILLIARD CUE.
APPLICATION FILED DEC. 20, 1905.



WITNESSES:
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by Richard A. ...

ATTYS

UNITED STATES PATENT OFFICE.

JULIUS ADORJAN, OF PARIS, FRANCE.

BILLIARD-CUE.

No. 829,749.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed December 20, 1905. Serial No. 292,607.

To all whom it may concern:

Be it known that I, JULIUS ADORJAN, a subject of the Emperor of Austria-Hungary, residing at Paris, France, have invented new and useful Improvements in Billiard-Cues, (for which I have obtained a patent in France, No. 358,062, bearing date September 26, 1905,) of which the following is a specification.

10 The present invention has for its object means which permit the regulation of the weight and equilibrium, at the wish of the user, of billiard-cues by a system of adjustable weights.

15 In the annexed drawings, Figure 1 is a longitudinal section of the lower part or butt-end of a billiard-cue fitted with my improvements. Fig. 2 is a similar view to Fig. 1, but showing a modified form of the present invention.

20 In Fig. 1 the butt-end of the cue is furnished with a central bore of suitable length, the lower part 5 of which is tapped or screwed internally at 6 to a convenient distance. In 25 this screwed portion 6 is fitted a screwed extension 7, formed upon the permanent butt-end 1' of the cue. A rod 9 is secured in any convenient manner—for instance, driven through or screwed into the extension 7 and 30 permanent butt-end 1'—and supports a number of heavy weights or sleeves 11, fitting fairly tight upon the rod 9, but allowing of their ready displacement, and between each of which is interposed a light cylinder or 35 sleeve 12, thus insuring immobility of the entire set which conveniently fill the bore 2. This arrangement allows the easy withdrawal of the rod 9 from the bore 2, while the user of the cue retains a firm grip thereon by means 40 of the butt-end 1'.

In order to prevent the displacement of the cylinders 11 and 12, I provide the inner end of the rod 9 with a screwed nut or sleeve 4 upon the similarly-screwed end 9', the said 45 rod 9 being thereby fixedly retained in the portions 7 and 1' of the cue and constituting one length of evenly-distributed material.

From the foregoing description it will be seen that it is easily possible to adjust the 50 weight and balance of billiard-cues by suitably distributing the weights or sleeves 11 and light cylinders 12 over the length of the rod 9.

If it is desired to bring the center of gravity 55 of the cue as near its base as possible, (this result not being possible with the weights 11,

since the latter cannot descend lower than the extension 7,) I form a recess 14 in the butt-end 1', into which fits snugly an enlarged portion or head 15 upon the outer end of 60 the rod 9, the recess 14 then being closed in any convenient manner—for example, by a plug 16.

The same results can, however, be attained by the method illustrated in Fig. 2, from 65 which it will be seen that the lower part or butt-end 1 of the cue is hollowed out or bored to a suitable length to provide the cylinder-bore 2, at the inner end of which is fitted a washer 4' of any convenient resilient material, 70 preferably rubber.

The outer end 5' of the bore 2 is provided with a tapped ring 6', firmly secured into the butt-end of the cue and adapted to receive a correspondingly-screwed nut or cap 7', which 75 may be actuated in any suitable manner—for example, by a headed button 8. In this case the screwed cap or nut 7' forms an integral part of the rod 9, the length of the latter being so determined that its free extremity or 80 inner end 10 abuts or bears against the compressible washer 4' when the screw 7' is sent home into the ring 6'. The rod 9 carries or receives the weighted cylinders or sleeves 11 and the lighter ones 12, as before described, 85 and the mode of adjustment remains the same as in the case of the previously-described arrangement. The heavy headed portion 15 is dispensed with, however, as an extra heavy sleeve 11 can be arranged next 90 the ring 6'.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A billiard-cue having a central cylindrical bore, a removable end portion closing 95 the end of said bore, a rod having one end rigidly secured to said end portion and its other end extending into the bore, and a plurality of weights removably mounted on said 100 rod, together with a plurality of suitable packing or filling pieces, said weights being of the same diameter as the bore so as to completely fill the same, substantially as described.

2. A billiard-cue having a central cylindrical bore, said bore having its open end screw-threaded, an end piece having a screw-threaded extension to engage the threads in 105 the bore to hold the two parts of the cue together, said end portion and its extension having a central bore, and a recess at the 110

outer end of the end portion, a rod passing through the bore in end piece and having an enlarged head fitting in the recess, said rod extending into the bore in the main part of
5 the cue, weights and packing or filling pieces removably carried by said rod, and means for securely holding the same on said rod, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JULIUS ADORJAN.

Witnesses:

JULES FAYOLLET,
EUGÈNE PICHONE.